

MEMORANDUM OF UNDERSTANDING

BETWEEN

THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
OF THE DEPARTMENT OF COMMERCE
OF THE UNITED STATES OF AMERICA ,of the one part,

AND

THE PHYSIKALISCH TECHNISCHE BUNDESANSTALT
AND

THE BUNDESANSTALT FÜR MATERIALFORSCHUNG UND -PRÜFUNG
OF THE FEDERAL REPUBLIC OF GERMANY, of the other part,

CONCERNING COOPERATION IN CHEMISTRY, PHYSICS,
AND ENGINEERING MEASUREMENT SCIENCES, MATERIALS
TECHNOLOGY, STANDARDS-RELATED ACTIVITIES
AND THE INTERCHANGE OF TECHNICAL INFORMATION AND
EXPERIENCES

Article I. Scope and Objectives

In accordance with and subject to the Agreement between the Government of the United States of America and the Government of the Federal Republic of Germany on Science and Technology Cooperation, signed at Washington on February 18, 2010, (hereinafter referred to as the “Science and Technology Agreement”), the National Institute of Standards and Technology (NIST) of the Department of Commerce of the United States of America, of the one part, and the Physikalisch-Technische Bundesanstalt (PTB) and the Bundesanstalt für Materialforschung und-prüfung (BAM) of the Federal Republic of Germany, of the other part (hereinafter referred to as the “Parties”) hereby agree to pursue scientific and technical cooperation in accordance with this Memorandum of Understanding (hereinafter referred to as the “Memorandum”). This Memorandum shall provide a mechanism for scientific and technical cooperation in chemistry, physics, and engineering measurement sciences; materials technology; standards related activities; and the interchange of technical information.

Article II. Cooperative Activities

Specific areas of cooperation of may include, but are not limited to, such areas of mutual interest as:

1. Assignment of long- term and short-term guest scientists to each Party's laboratories for periods not to exceed 2 years;
2. Research stays by PTB and/or BAM scientists and engineers at NIST, as well as research stays by NIST scientists and engineers at PTB and/or BAM, under Guest Researcher Programs. The NIST Guest Researcher Program shall be governed by the provisions of Appendix 1 to this Memorandum, and the PTB and/or BAM Guest Researcher Program shall be governed by the provisions of Appendix 2 to this Memorandum;
3. Participation in seminars, workshops and training courses in each other's laboratories;
4. Exchange of publications;
5. Cooperative research projects carried out partially in each institution, including cooperation in the production of Standard Reference Data;
6. Mutual development and exchange of Certified Reference Materials;
7. Comparisons of national standards;
8. Calibrations of special instruments or standards, in cases where one Party has unique capabilities;
9. Technical cooperation between NIST experts on the one hand and PTB or BAM experts on the other hand to improve the current national schemes of scientific and industrial metrology, and to develop new metrological activities;
10. Technical cooperation in design and construction of new metrology laboratories; and
11. Temporary loan of equipment, when available, for the implementation of specific activities.

Article III. Source of Funding

Activities under this Memorandum are subject to personnel available to the Parties. Furthermore the obligations of the Parties hereunder are subject to the availability of appropriated funds. Under the Memorandum, the receiving-side will pay for facilities, supplies, and other research costs except for those which are required only to meet a Guest Researcher's special needs. The sending-side will continue normal support of the exchange scientists, including base salary and fringe benefits. In most cases, any subsistence allowance provided to compensate for differential costs of living will be provided by the sending-side. However, the receiving-side may, based on its availability of funds, provide a portion or all of the subsistence allowance if doing otherwise would prevent the exchange from occurring.

Article IV. Intellectual Property

The protection of intellectual property created or furnished in the course of cooperative activities under this Memorandum, the allocation of rights for such intellectual property, and business-confidential information obtained and/or exchanged pursuant to this Protocol, will be governed by the provisions of Annex I of the Science and Technology Agreement.

Article V. Disclaimer

Information transmitted by one Party to the other Party under this Memorandum shall be accurate to the best knowledge and belief of the transmitting Party; however, the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the receiving Party or any third Party.

Article VI. Planning and Review of Activities

Upon entry into force of this Memorandum, the Parties will name representatives who, at times mutually established by the Parties, and at a minimum once a year, will plan and review activities under this Memorandum and use their best abilities to mitigate disputes, if any. The point of contact for implementation of these activities for NIST shall be the NIST Office of the Director for International and Academic Affairs, and the points of contact for PTB and BAM shall be their Presidents or other offices as notified to the other Party in writing.

Article VII. Project Annexes

Any specific project activities carried out under this Memorandum shall be agreed upon by the Parties in writing. All cooperation will be coordinated in a manner consistent with the relevant laws and regulations of the United States of America and the Federal Republic of Germany. Whenever more than the exchange of technical information or exchange visits of individuals or promotion activities is planned to take place, such activity shall be described in a Project Annex to this Memorandum which shall set forth as appropriate to the activity: a work plan, staffing requirements, cost estimates, funding source, and other undertakings, obligations, or conditions not included in this Memorandum. In case of any inconsistency between the terms of this Memorandum and the terms of a Project Annex hereto, the terms of this Memorandum shall be controlling.

Article VIII. Entry into Force and Termination

This Memorandum shall enter into force upon signature by the Parties and remain in force for five (5) years, unless terminated earlier by either Party upon ninety (90) days' prior written notice to the other Party. This Memorandum may be amended or extended by written agreement of the Parties. The termination of this Memorandum shall not affect the validity or duration of projects under this Memorandum that are initiated prior to such termination.

Done at Paris, France, in triplicate, on this 25th day of May 2011 in the English language.

The undersigned being duly authorized by their respective Governments have signed this Memorandum.


FOR THE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
OF THE UNITED STATES OF AMERICA



FOR THE
PHYSIKALISCH - TECHNISCHE BUNDESANSTALT
OF THE FEDERAL REPUBLIC OF GERMANY



FOR THE
BUNDESANSTALT FÜR
MATERIALFORSCHUNG UND -PRÜFUNG
OF THE FEDERAL REPUBLIC OF GERMANY



APPENDIX I

ON A GUEST RESEARCHER PROGRAM
AT THE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Pursuant to this Memorandum, NIST agrees to supervise and administer a Guest Researcher Program for researchers from PTB and BAM. Guest Researchers shall come to NIST on a Guest Researcher Agreement (NIST Form 1291- copy attached) which will include the Statement of Work and the Terms of the Appointment and shall be signed by the Guest Researcher and by the designated NIST host. Each Guest Researcher Agreement shall reference the Memorandum.

PTB commits itself only in terms of liabilities incurred by PTB or its representatives, and BAM commits itself only in terms of liabilities incurred by BAM or its representatives.

NIST and PTB and BAM agree that:

- (1) Each Guest Researcher appointment shall be conducted on the schedule specified in each instance, subject to extension by mutual agreement of the Parties hereto, and to the provisions of Items (3), (5), and (6) below.
- (2) NIST shall be the supervising agency for both the administrative and scientific aspects of the NIST Guest Researcher Program. A NIST supervisor shall be designated for each Guest Researcher appointment.
- (3) The scientific and technical projects of the Guest Researchers shall be reviewed at least annually by the Parties to this Memorandum, and more frequently if deemed advisable by either Party. Such review shall precede approval of the work program for each succeeding period. PTB and BAM shall designate individuals to represent PTB and BAM in these reviews.
- (4) PTB and/or BAM shall nominate the individual(s) to serve as Guest Researcher(s) for each project. The provisions applying to Guest Researchers as this term is used in the following items of this Memorandum shall also apply to members of their support staff while serving at NIST as employees of their Institutes.

(5) While it shall be the privilege and responsibility of PTB and BAM to select the Guest Researchers, they shall also be acceptable to NIST. NIST and PTB and BAM each reserve the right to terminate the association of any individual Guest Researcher with this Program by providing notice in writing to the other Party.

(6) NIST and PTB and BAM each reserve the right to terminate this Exchange Program by providing at least sixty (60) days' notice in writing to the other Party.

(7) Remuneration to the individual Guest Researchers for travel and related expenditures shall be provided directly by PTB or BAM. PTB or BAM shall provide each Guest Researcher with a subsistence allowance to offset differential costs of living, if necessary.

(8) PTB or BAM shall reimburse NIST for the cost of special supplies, special materials, computation, technician assistance, and/or other special services provided the Guest Researcher(s) by NIST in connection with the program covered by each Guest Researcher Agreement in the terms thereof.

Charges for special supplies and/or services shall require the approval of the Guest Researcher and the NIST Supervisor for each Program as designated in the pertinent Guest Researcher Agreement. Such charges shall not exceed the amount specified for each project without prior approval of PTB or BAM. Upon completion of each project, outstanding charges shall be billed to PTB or BAM to cover such cost.

All equipment, materials, instruments, and supplies purchased during the term of this Memorandum shall be considered and remain at all times the property of the Party with whose resources they were purchased. Special equipment and instruments obtained by PTB or BAM from sources external to NIST and provided by PTB or BAM to NIST for use in connection with the programs covered by this Memorandum will be returned to PTB or BAM at PTB's or BAM's expense and risk as soon as practicable after termination of this Memorandum or, as applicable and upon written request after termination of the specific project. PTB and BAM agree to assume full responsibility for maintenance of such equipment and instruments.

(9) Guest Researchers shall pursue their activities at NIST on the work schedule that applies to NIST employees unless otherwise specified in the Guest Agreement and under the government security and conduct regulations that apply to NIST employees. Guest Researchers shall conform to the administrative instructions and

requirements of NIST and the Department of Commerce, including reporting any new animal or human subject research.

(10) Work completed by Guest Researchers shall be made available to the public under the same conditions as work performed by NIST employees.

(11) Guest Researchers are not employees of NIST and waive any and all claims for compensation from the U.S. Government for any services performed. PTB or BAM may be held accountable for loss of or damage to U.S. Government property (other than that resulting from normal wear and tear) occasioned by the Guest researchers. NIST and PTB and BAM agree to supply all records which may have a bearing on any claim and to cooperate in any reasonable way toward the imposition of any claim which may arise hereunder.

APPENDIX II

ON A GUEST RESEARCHER PROGRAM AT THE
PHYSIKALISCH TECHNISCHE BUNDESANSTALT (PTB)
OR THE
BUNDESANSTALT FÜR MATERIALFORSCHUNG UND -PRÜFUNG (BAM)

PTB and BAM agree to supervise and administer a Guest Researcher Program for Guests from NIST relating to the measurement science and technology subjects having the objectives and comprising the work described in a Guest Researcher Program Authorization Letter to be prepared by PTB or BAM and NIST for each program. Each such Program Authorization Letter shall reference this Appendix and shall be countersigned by the Guest Researcher and by the designated PTB or BAM supervisor in accordance with Item (2) below.

PTB or BAM activities which complement each program shall be specified in each Guest Researcher Program Authorization Letter.

NIST commits itself only in terms of liabilities incurred by NIST or its representatives.

The Parties agree that:

(1) The Program shall be conducted on the schedule specified in each instance, subject to extension by mutual agreement of the Parties hereto, and to the provisions of Items (3), (5), and (6) below.

(2) PTB or BAM shall be the supervising agency, both administrative and scientific, for the Guest Researcher Programs. A PTB or BAM supervisor shall be designated for each project.

(3) The scientific and technical projects of the Guest Researchers shall be reviewed at least annually by the Parties to this Memorandum, and more frequently if deemed advisable by either party. Such review shall precede approval of the work program for each succeeding period.

NIST shall designate an individual to represent NIST in these reviews.

(4) NIST shall designate the individual(s) to serve as Guest Researcher(s) for each project. The provisions applying to Guest Researchers as this term is used in the following items of this Memorandum shall also apply to members of their support staff while serving at PTB or BAM as employees of NIST.

(5) While it shall be the privilege and responsibility of NIST to select the Guest Researchers, they shall also be acceptable to PTB or BAM. PTB and BAM and NIST each reserve the right to terminate the association with this Program of any individual Guest Researcher by providing notice in writing to the other Party.

(6) PTB and BAM and NIST each reserve the right to terminate this Program by providing at least sixty (60) days' notice in writing to the other Party.

(7) Remuneration to the Guest Researcher(s) for travel and related expenditures shall be provided directly by NIST.

(8) NIST shall reimburse PTB or BAM for the cost of special supplies, special material, computation, technician assistance, and/or other special services provided the Guest Researcher(s) by PTB or BAM in connection with the program covered by each Guest Researcher Program Authorization Letter in the terms thereof. NIST shall reimburse PTB or BAM for any subsistence allowance provided to researchers to offset differential costs of living, if and when the allowance has been previously authorized by NIST. Only in cases where requirement of such reimbursement would prevent the exchange from proceeding PTB or BAM shall provide a portion of the allowance. When a strong case can be made that NIST is unable to provide any funds for the subsistence allowance, PTB or BAM upon prior consultation with NIST may provide, depending upon the availability of funds, the entire allowance.

Charges for special supplies and/or services shall require the approval of the Guest Researcher and the PTB or BAM Supervisor for each Program as designated in the pertinent Authorization Letter. Such charges shall not exceed the amount specified for each program without prior approval of NIST. Upon completion of each program, outstanding charges shall be billed to NIST to cover such cost.

All equipment, materials, instruments, and supplies purchased during the term of this Memorandum shall be considered and remain at all times the property of the Party with whose resources they were purchased. Special equipment and instruments obtained by NIST from sources external to PTB or BAM and provided by NIST to PTB or BAM for use in connection with the programs covered by this

Memorandum will be returned to NIST at NIST's expense and risk as soon as practicable after termination of this Memorandum or, as applicable and upon written request after termination of the specific project. NIST agrees to assume full responsibility for maintenance of such equipment and instruments.

(9) Guest Researchers shall pursue their activities at PTB or BAM on the work schedule that applies to PTB and BAM employees unless otherwise specified in the Guest Researcher Program Authorization Letter, and under the government security and conduct regulations that apply to PTB and BAM employees. Guest Researchers shall conform to the requirements of the Official Law of the Federal Republic of Germany, as amended, hereby made part of this Memorandum, to the extent that this prohibits private business activity or interest incompatible with the best interests of PTB and BAM.

(10) Work completed by Guest Researchers shall be made available to the public under the same conditions as work performed by PTB and BAM employees. PTB and BAM publications shall be available as media through which work of Guest Researchers can be reported and published. Work under this Memorandum may be used by the Parties freely, for which they shall henceforth grant free reciprocal licenses.

(11) Guest Researchers are not employees of PTB or BAM. NIST may be held accountable for loss of or damage to property of PTB or BAM (other than that resulting from normal wear and tear) occasioned by the Guest Researchers. PTB, BAM, and NIST agree to supply all records which may have a bearing on any claim and to cooperate in any reasonable way toward the disposition of any claim which may arise hereunder.